

REMARKS

Claims 1-44 are pending in the case. Claims 25-28 and 36-44 are withdrawn from consideration pursuant to a restriction requirement and are canceled herein.

Furthermore, pending claims 13, 29, and 31-35 are also canceled. Claim 19 is rewritten as an independent claim.

CLAIM OBJECTIONS

Claim 3 has been amended as helpfully suggested by the Examiner to delete the noted words. This should address the objections, and Applicant would like to thank the Examiner for the helpful suggestion regarding claim 3.

SECTION 103 REJECTIONS

Claims 1-8, 10-18, 22-24 and 29-35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Driscoll et al. (U.S. Patent No. 6,843,657) as modified by Lambert. (U.S. Patent No. 5,795,162). Of those rejected claims, claims 13, 29, and 31-35 have been canceled without prejudice, possibly for pursuit in a Divisional application. Thus, the rejection of those claims is moot. Of the remaining claims 1-8, 10-12, and 14-18, claim 1 is the base independent claim.

In rejection of independent claim over the Driscoll et al/Lambert. combination, the Examiner argues that the Driscoll et al. reference shows all the elements except for a compressible interface element. Lambert is then brought in to somehow modify the Driscoll et al. reference to yield the claimed invention.

However, the Examiner simply makes the statement that it would be obvious to modify Driscoll et al. to “provide” the compressible element of Lambert for more reliable contacting. The Examiner does not discuss specifically how Driscoll et al. might be modified, nor is there any teaching in either the Driscoll et al. or Lambert references to show a person of ordinary skill in the art how Driscoll et al. might be modified to somehow yield the claimed invention.

Regarding obviousness under section 103, it must be established that the teaching is beyond just an “obvious to try” standard. Rather, there must be a teaching of how to modify the references to yield the invention. The Driscoll et al. reference discloses an interconnect system for high-density interconnection while the Lambert reference is focused on coupling on RF flex circuit to a circuit board. For the interconnect system of Driscoll et al., an elaborate structure is taught utilizing interposers 30, 32 or 1030, 1032, utilizing multiple U-shaped or linear conductive spring elements shown in Figures 3-7 for coupling with a backpanel 22. Simply saying that the compressible element of Lambert can be somehow thrown together or “provided” with the structure of Driscoll et al. does not provide or establish the necessary teaching to a person of ordinary skill in the art that would establish a *prima facie* case of obviousness of the invention as recited in independent claim 1. Furthermore, even if the two references were somehow combined, the combination still would not teach the invention as recited in the amended claims.

Particularly, turning to claim 1, a connector is claimed comprising a signal array having a plurality of shielded conductors, with opposite ends wherein each of the shielded conductors includes an axial conductive element and an outer conductive

element completely surrounding the axial conductive element.

Claim 1 further recites that the plurality of shielded conductors are arranged in a body structure so that the inner and outer conductive elements are presented at a face surface of the body structure in a generally co-planar arrangement. That is, the conductive elements provide their electrical signals at the face surface plane. Such a configuration is desirable for utilization with the generally planar compressible interface element, which is recited as being positioned at the face surface of the body structure.

Claim 1 further recites that a conductive interface element, when compressed between the face surface of the signal array and a signal-bearing component, maintains, through the interface element, the geometric arrangements of the axial conductive element and the completely surrounding outer conductive elements of the shielded conductors, presented at the face surface of the array, to pass a signal with the signal-bearing component. That is, the compressible interface element in addition to just providing a connection, in effect, presents a center conductor and an outer conductor that completely surround the center conductor through the interface element and to the signal-bearing component, such as a circuit board. In the connector of claim 1, the compressible interface element essentially becomes an extension of the axial conductive element and the completely surrounding outer conductive element. In effect, it is an extension of the overall shielded conductor, providing the desirable passage of the signal from the array, and providing the desirable performance characteristics of a high frequency connector without the significant drawbacks of pins and the problems associated with misalignment, deviations in the geometric

arrangement between pins, and the impedance variation and cross-talk associated therewith.

However, the Driscoll et al. reference essentially utilizes pins, albeit spring-loaded pins. The conductive spring elements 300-306 as illustrated in Figures 3, 5 and 6 of Driscoll et al., are nothing more than extensions of the cable conductors that form pins. For example, as noted in column 12, lines 57-67, it is important that the signal-carrying conductive spring elements are substantially the same diameters as the twin-ax central conductors to maintain constant impedance. Those spring elements may then be spring-loaded against a back plane as illustrated in Figure 8. With such an arrangement as taught by Driscoll et al., there would be no need for a compressible interface element as recited in the pending claims. For example, where would the element 40 of Lambert even be utilized? Generally, the goal with connectors, particularly high-frequency connectors, is to have as few interfaces and barriers between the signal conductors that are being interfaced. Therefore, adding another element to the complete connector of Driscoll et al. would not be a course of action chosen by a person of ordinary skill in the art. In fact, it would probably be a course of action that would be avoided by a person of ordinary skill in the art. As such, there is no teaching whatsoever to somehow incorporate a stray element from Lambert into Driscoll et al. to somehow render the claimed invention obvious. Nor is there a teaching of why someone of skill in the art would do it, or how they would do it. In fact, the general motivation in the art would be to not complicate the Driscoll et al. device with more parts. A general reference by the Examiner about providing "more reliable contacting" is completely unsupported in the cited references.

Furthermore, even if combined, the references would not teach the invention.

The Driscoll et al. reference, as shown in the drawings, utilizes a series of discontinuous U-shaped conductive spring elements 200-206 and straight elements 210-214 to provide shielding. Therefore, the structure of Driscoll et al. does not even provide an outer conductive element at a face surface of a body structure that completely surrounds the axial element, as claimed in claim 1. Therefore, even using compressible element 40 of Lambert, the element would not be a geometric arrangement of a completely surrounding outer conductive element that is presented at the face surface of the array, through the interface elements. That is, because of the discontinuous nature of the Driscoll et al. spring elements utilized for shielding, even if the compressible element of Lambert was somehow utilized with the structure of Driscoll et al., that device would not yield the claimed invention wherein essentially the axial conductive element and the completely surrounding outer conductive element of the shielded conductors that are presented in a generally co-planar arrangement at the face surface, are maintained through the interface element, as in the structure of the Driscoll interposer element 32.

Furthermore, as illustrated in Figure 10, Driscoll et al. does not teach a body structure such as in the form of cable housing 1006, 1008, which arranges the shielded conductors so that the inner and outer conductive elements are presented at a face surface of a body structure in a general co-planar arrangement. As illustrated in Figure 10, ends of the shielded conductors are sticking out from the face surface so that they can engage an interposers 1030, 1032.

Therefore, not only does the recited combination fail to provide any suggestion or

teaching to a person of ordinary skill in the art to somehow combine the cited references of Driscoll et al. and Lambert, even if they were somehow combined, they would not yield the invention as recited in claim s1 because the combination does not teach all the elements of claim 1. Therefore, claim 1 is allowable.

The remaining dependent claims 2-8, 10-12, 14-18, 22-24, and 30 all depend from claim 1, and thus are allowable for the reasons discussed hereinabove with respect to claim 1. Furthermore, each of those dependent claims recites a unique combination of elements which is not taught by the cited art.

Claims 1 and 9 are rejected under 35 U.S.C. §103(a) over the combination of Pluymers (U.S. Patent No. 6,590,478) also as modified by Lambert. However, the Pluymers reference is even further removed from the present invention, as it is focused upon a short co-axial transmission line. Again, there is absolutely no teaching provided by Pluymers or Lambert as to how the Lambert reference may somehow be incorporated with the Pluymers reference to somehow yield the present invention.

Specifically, there is no teaching in Pluymers of a signal array having a plurality of shielded conductors, wherein the inner and outer conductive elements are presented at a face surface of a body structure in a general co-planar arrangement. Nor is there any teaching or suggestion of another element might be incorporated with the Pluymers arrangement. The Pluymers arrangement is essentially directed to a short co-axial transmission line positioned between two circuit boards. The center conductor and outer conductor of the Pluymers transmission line is formed of ladder-shaped spring structures that must be directly coupled to the board as illustrated in Figure 8. The springiness of the ladder-shaped spring structure provides a direct connection to traces

on the board with the springiness of the structure providing a positive connection between the boards. There is absolutely no reason for a person of ordinary skill in the art to somehow modify the arrangement with another element such as the claimed compressible interface element. In fact, given the desired positive connection between the short co-axial transmission line and the traces, a person of ordinary skill in the art is really taught not to interpose or place any other elements between the traces and the transmission line sections of Pluymers. Of course, Lambert is just cited to for element 40 and provides no motivation to modify Pluymers. Accordingly, the combination of Pluymers and Lambert does not in any way render obvious the claim invention recited in claim 1.

Claim 9 depends from claim 1, and thus includes the limitations therein and would be allowable for the same reasons.

ALLOWABLE SUBJECT MATTER

Claims 17 and 19-21 are indicated as being objected to and otherwise allowable if rewritten. Claim 17 depends from allowable claim 1, and thus is allowable for the reasons set forth above.

Claim 19 has been rewritten by inserting the language of claim 1 therein. Thus, claims 19-21 are also now in an allowable form.

CONCLUSION

Applicant submits that the currently pending claims are in an allowable form and, therefore, requests a Notice of Allowability of the application at the Examiner's earliest convenience. If any issues remain in the case which might be handled in an expedited fashion, such as through a telephone call or an Examiner's Amendment, the Examiner is certainly encouraged to telephone the Applicant's representative or to issue an Examiner's Amendment.

Applicant encloses a check in the amount of \$120.00 for a one-month extension of time to file a Response herein. Applicant knows of no other fees due with this submission. However, if any charges or credits are necessary, please apply them to Deposit Account 23-3000.

Respectfully submitted,

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